

Global Hawk #871 11/01/12

Aircraft:

[Global Hawk #871](#) ([See full schedule](#))

Flight Number:

871-0082

Payload Configuration:

HS3 - TN871 2012 config

Nav Data Collected:

No

Total Flight Time:

4.8 hours

Submitted by:

Chris Naftel on 11/01/12

Flight Segments:

From:	EAFB	To:	EAFB
Start:	11/01/12 19:05 Z	Finish:	11/01/12 23:51 Z
Flight Time:	4.8 hours		
Log Number:	13H008	PI:	Marilyn Vasques
Funding Source:	Hal Maring - NASA - SMD - ESD Radiation Science Program		
Purpose of Flight:	Check		
Comments:	This was the first flight of TN871 for any science application. Three instruments are installed on this aircraft: HIRAD, HAMSR, and HIWRAP. All aircraft systems operated nominally.		

Flight Hour Summary:

	12H002	13H008
Flight Hours Approved in SOFRS	327	
Flight Hours Previously Approved		178.1
Total Used	148.9	46
Total Remaining		132.1

13H008 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/06/12	872-0102	Science	7.3	7.3	170.8
10/12/12	872-0103	Ferry	9.7	17	161.1
11/01/12	871-0082	Check	4.8	21.8	156.3
11/05/12 - 11/06/12	871-0083	Science	24.2	46	132.1

Source URL: https://airbornescience.nasa.gov/flight_reports/Global_Hawk_871_11_01_12

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Related Science Report:

HS3 - Global Hawk #871 11/01/12 Science Report

Mission:

HS3

Mission Summary:

Hurricane and Severe Storm Sentinel (HS3) Mission

2012-11-01 Flight Report

This was the 1st flight of AV-1 for HS3. The mission is a simple range flight that is meant to test the aircraft and payload at altitude.

Flight Scientist: Paul A. Newman

1113 PDT Engine start

1154 PDT taxi

1205 Takeoff

1300 Payload performing nominally.

1400 Pilots will practice buoy overflight maneuver.

1444 Started 2nd buoy overflight maneuver.

1500 HIWRAP reports hard drive failure, HIRAD operating a bit too warm, HAMSR performing well.

1506 Buoy maneuver completed. It takes about 21 minutes to execute this maneuver.



Figure 1: the two "buoy" maneuvers.

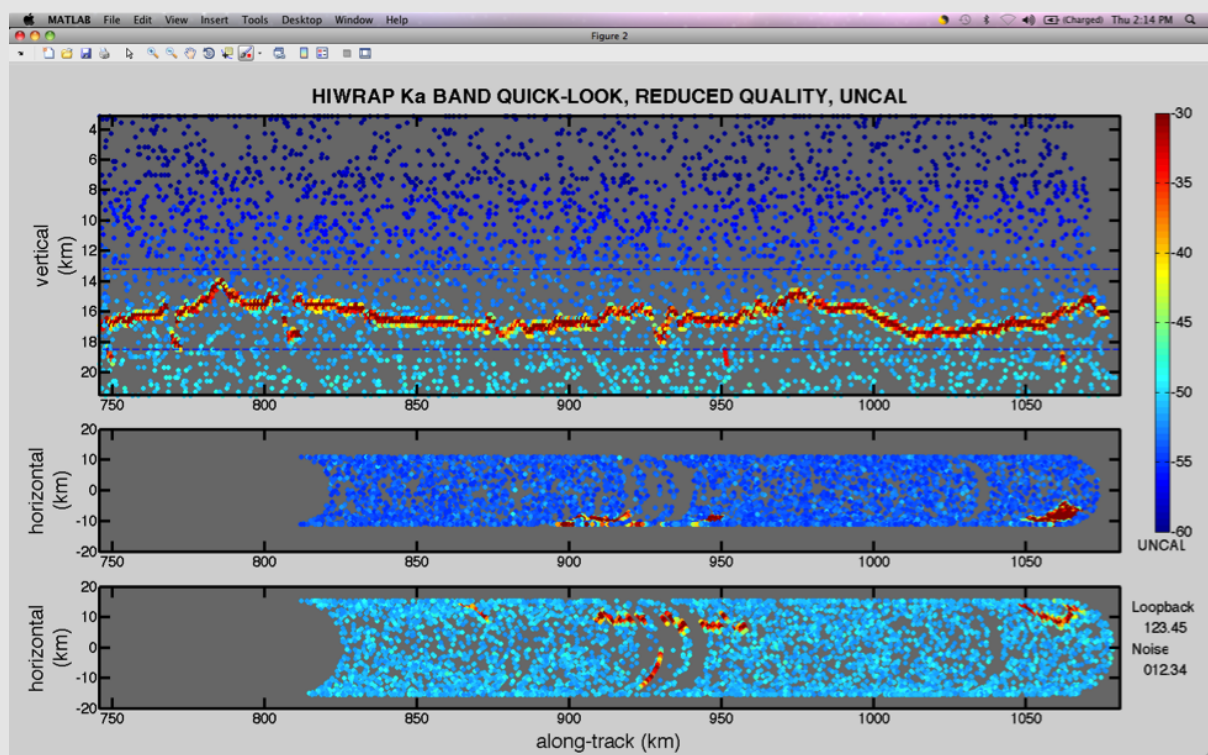


Figure 2: HIWRAP quick look data. The top panel shows a vertical profile below the aircraft. The red trace is actually showing the surface. The deep canyons (e.g., near 810 km) result from the airplane banking. The middle panel corresponds to a constant altitude slice at about 13 km below the plane (indicated by the blue line in the top panel). The bottom panel is the constant altitude return at slightly below 18 km (as indicated by the 2nd blue line

in the top panel).

1535 About 10 minutes more of cold soak, and then begin descent back to DFRC.

1545 Beginning descent.

1550 Leveling off for 10 minutes at 45kft to warm instruments.

1615 Resume descent

1630 Begin power down

Payload has worked pretty well over the course of the flight. Instrument performance seems to be pretty good, with the exception of HIRAD running a bit warm and HIWRAP losing a disk drive. HIWRAP believes that their new drives simply run hotter than the old drives. None of the instruments need to be pulled from the plane, and the fixes are rather straight forward. Hence, the payload looks good for a Monday range flight.

1635 Payload fully off.

1650 Landing

Submitted by:

Erin Czech on 11/02/12

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

12H002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
08/28/12	872-0094	Check	5.5	5.5	321.5
08/30/12	872-0095	Maintenance	0.7	6.2	320.8
09/06/12 - 09/07/12	872-0096	Science	19.3	25.5	301.5
09/11/12 - 09/12/12	872-0097	Science	25.7	51.2	275.8
09/14/12 - 09/15/12	872-0098	Science	22.4	73.6	253.4
09/19/12 - 09/20/12	872-0099	Science	24.8	98.4	228.6
09/22/12 - 09/23/12	872-0100	Science	25.1	123.5	203.5
09/26/12 - 09/27/12	872-0101	Science	25.4	148.9	178.1